

Notice of Allowability

Application No.

09/580,700

Examiner

Kandasamy Thangavelu

Applicant(s)

SWIFT, LARRY

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 19 October 2005.
2. ☒ The allowed claim(s) is/are 1,3-8,10,12,14-19,21,23,25-30,32,34 and 36-41.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input checked="" type="checkbox"/> Other <u>Clean copy of allowed claims</u> . |

Clean copy of allowed claims

1. A system for determining and predicting performance and recommending a configuration of a communication device, comprising:

means for specifying a reporting period, said reporting period corresponding to a reporting period of interest;

means for specifying a plurality of summary periods, each said summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a plurality of days of interest and to a portion of said days of interest;

means for processing a retrieved plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods, each performance parameter in the group corresponding to a performance category within the summary period;

means for presenting and displaying each of said performance parameter groups in association with the corresponding summary period for the group;

means for processing the per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device;

means for presenting and displaying in a trend report said plurality of trend parameters for said reporting period; and

means for recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications

device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

2. (Cancelled)

3. The system of claim 1, wherein at least one of said selected data parameters is a burst statistic.

4. The system of claim 3, further comprising a means for specifying a plurality of burst ranges.

5. The system of claim 3, further comprising a means for specifying a percentage range for each one of said burst ranges.

6. The system of claim 3, wherein said processing means for processing the per-summary-period performance parameter groups into a plurality of trend parameters further comprises a burst range trending means which predicts future performance of said communication device relative to each said burst range.

7. The system of claim 4, wherein at least one of said burst ranges is a total burst range corresponding to the total number of all bits transmitted during each one of said summary periods.

8. The system of claim 1, wherein said processing means for processing the per-summary-period performance parameter groups into a plurality of trend parameters determines said plurality of trend parameters using a statistical regression algorithm.

10. The system of claim 8, wherein said processing means for processing the per-summary-period performance parameter groups into a plurality of trend parameters further processes said plurality of trend parameters to predict the time at which capacity of said communication device becomes over utilized or under utilized and should be changed.

11. (Cancelled).

12. A system for determining and predicting performance and recommending a configuration of a communication device, comprising:

a data poller, wherein said data poller collects a plurality of data parameters from said communication device;

a database which stores said data parameters;

a user interface, wherein a user specifies a reporting period, said reporting period corresponding to a reporting period of interest, and said user specifies a plurality of summary periods, each said summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a plurality of days of interest and to a portion of said days of interest;

a processor, wherein said processor retrieves a plurality of selected data parameters from said database such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected

data parameters into a plurality of per-summary-period performance parameter groups which correspond to actual performance of said communication device during one of said summary periods, each performance parameter in the group corresponding to a performance category within the summary period;

a data presentation module, wherein said module presents each of said plurality of processed performance parameter groups in association with the corresponding summary period;

wherein the processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device, and

the data presentation module presents in a trend report said plurality of trend parameters associated with said reporting period;

wherein said processor recommends a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

13. (Cancelled).

14. The system of claim 12, wherein at least one of said selected data parameters is a burst statistic.

15. The system of claim 14, wherein a user specifies via said user interface a plurality of burst ranges.

16. The system of claim 14, wherein a user specifies via said user interface a percentage range for each one of said burst ranges.

17. The system of claim 14, wherein said processor further trends each said burst range to predict future performance of said communication device relative to each said burst range.

18. The system of claim 15, wherein at least one of said burst ranges is a total burst range corresponding to the total number of all bits transmitted during each one of said summary periods.

19. The system of claim 12, wherein said processor generates said plurality of trend parameters using a statistical regression algorithm.

21. The system of claim 19, wherein said plurality of trend parameters predict the time at which capacity of said communication device becomes over utilized or under utilized and should be changed.

22. (Cancelled).

23. A method for determining and predicting performance and recommending a configuration of a communication device, the method comprising the steps of:

- collecting a plurality of data parameters from said communication device;
- specifying a reporting period, said reporting period corresponding to a reporting period of interest;
- specifying a plurality of summary periods, each said summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a plurality of days of interest and to a portion of said days of interest;
- processing a plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods, each performance parameter in the group corresponding to a performance category within the summary period;
- presenting each of said plurality of performance parameters in association with the corresponding summary period;
- processing said per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device;
- presenting in a trend report said plurality of trend parameters associated with said reporting period; and
- recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

24. (Cancelled).

25. The method of claim 23, wherein at least one of said selected data parameters is a burst statistic.

26. The method of claim 25, further comprising a step of specifying a plurality of burst ranges.

27. The method of claim 25, further comprising a step of specifying a percentage range for each one of said burst ranges.

28. The method of claim 27, wherein said processing said per-summary-period performance parameter groups into a plurality of trend parameters step further comprises a burst range trending step which predicts future performance of said communication device relative to each one of said burst ranges.

29. The method of claim 26, wherein at least one of said burst ranges is a total burst range corresponding to the total number of all bits transmitted during each one of said summary periods.

30. The method of claim 23, wherein said processing said per-summary-period performance parameter groups into a plurality of trend parameters step determines said plurality of trend parameters using a statistical regression algorithm.

32. The method of claim 30, wherein said processing said per-summary-period performance parameter groups into a plurality of trend parameters step further includes the step of predicting the time at which capacity of said communication device should be changed.

33. (Cancelled).

34. A computer readable medium having a program for determining and predicting performance and recommending a configuration of a communication device, the program comprising logic configured to perform the steps of:

receiving a specification of a reporting period from a user, said reporting period corresponding to a reporting period of interest;

receiving a specification for a plurality of summary periods, each said summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to at least one day of interest and to at least a portion of said day of interest;

retrieving a plurality of selected data parameters, said plurality of selected data parameters corresponding to said plurality of summary periods;

processing said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods each performance parameter in the group corresponding to a performance category within the summary period;

presenting each of said plurality of performance parameters in association with the corresponding summary period;

trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device;

presenting in a trend report said plurality of trend parameters associated with said reporting period; and

recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

35. (Cancelled).

36. A method for determining and predicting performance and recommending a configuration of a communication device, the method comprising the steps of:

retrieving a plurality of selected data parameters from a communication device, such that said plurality of selected data parameters corresponds to a plurality of summary periods, each said summary period defining a different portion of a reporting period, and wherein each said summary period corresponds to at least one day of interest and to at least a portion of said day of interest;

processing said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods;

trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device; and recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

37. A system for determining and predicting performance and recommending a configuration of a communication device, comprising:

a user interface, wherein a user specifies a reporting period, said reporting period defining a reporting period of interest, and said user specifies a plurality of summary periods, each said summary period corresponding to a different portion of said reporting period, and wherein each said summary period corresponds to a at least one day of interest and to at least a portion of said day of interest; and

a processor, wherein said processor detects a plurality of selected data parameters from said communications device such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods, and wherein said processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device, and wherein said processor recommends a performance rating in terms of capacity or size for said communication device

based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

38. A system for determining and predicting performance and recommending a configuration of a communication device, comprising:

means for collecting a plurality of data parameters from said communication device;

means for storing said data parameters;

means for specifying a reporting period, said reporting period corresponding to a reporting period of interest;

means for specifying a plurality of summary periods, each said summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to at least one day of interest and to at least a portion of said day of interest;

means for retrieving a plurality of selected data parameters from said storing means, said plurality of selected data parameters corresponding to said plurality of summary periods;

means for processing said plurality of selected data parameters into a per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods;

means for trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device;

means for recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications

device, wherein said port speed corresponds to the rate at which data is transmitted through said port; and

means for presenting said plurality of processed performance parameters and said plurality of trend parameters in a trend report.

39. A method for determining and predicting performance and recommending a configuration of a communication device, the method comprising the steps of:

collecting a plurality of data parameters from said communication device;

storing said data parameters;

specifying a reporting period, said reporting period corresponding to a reporting period of interest;

specifying a plurality of summary periods, each summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to at least one day of interest and to at least a portion of said day of interest;

retrieving a plurality of selected data parameters from storage, said plurality of selected data parameters corresponding to said plurality of summary periods;

processing said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during each of said summary periods;

trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device;

recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications

device, wherein said port speed corresponds to the rate at which data is transmitted through said port;

presenting said plurality of processed performance parameter groups and said plurality of trend parameters in a trend report; and

displaying said trend report.

40. A transmitter having a built-in capability for determining and predicting performance and recommending a configuration, comprising:

a user interface, wherein a user specifies a reporting period, said reporting period corresponding to a reporting period of interest, and said user specifies a plurality of summary periods, each summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to at least one day of interest and to at least a portion of said day of interest;

a processor, wherein said processor retrieves a plurality of selected data parameters such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups each group corresponding to actual performance of said transmitter during one of said summary periods, and wherein said processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said transmitter, and wherein the processor recommends a performance rating in terms of capacity or size for said transmitter based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said transmitter, wherein said port speed corresponds to the rate at which data is transmitted through said port; and

a data presentation module, wherein said module presents said plurality of processed performance parameters and said plurality of trend parameters in a trend report.

41. A receiver having a built-in capability for determining and predicting performance and recommending a configuration, comprising:

a user interface, wherein a user specifies a reporting period, said reporting period corresponding to a reporting period of interest, and said user specifies a plurality of summary periods, each summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a at least one day of interest and to at least a portion of said day of interest;

a processor, wherein said processor retrieves a plurality of selected data parameters such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said receiver during each of said summary periods, and wherein said processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said receiver, and wherein said processor recommends a performance rating in terms of capacity or size for said receiver based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said receiver, wherein said port speed corresponds to the rate at which data is received through said port;

a data presentation module, wherein said module presents said plurality of processed performance parameter groups and said plurality of trend parameters.

42. (Cancelled).

43. (Cancelled).

44. (Cancelled).

45. (Cancelled).

DETAILED ACTION

Introduction

1. This communication is in response to the Applicants' communication dated October 19, 2005. Claims 1, 2, 8, 12, 13, 19, 23, 24, 30 and 34-41 were amended. Claims 42-45 were added. Claims 9, 20, 26 and 31 were cancelled. Claims 1-8, 10-19, 21-25, 27-30 and 32-45 of the application are pending.

Examiner's Amendment

2. Authorization for this examiner's amendment was given in a telephone conversation by Ms. Karen Hazzah on December 6, 2005.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to the applicants, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3 In the claims:

Replace Claim 1 with:

1. A system for determining and predicting performance and recommending a configuration of a communication device, comprising:

means for specifying a reporting period, said reporting period corresponding to a reporting period of interest;

means for specifying a plurality of summary periods, each said summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a plurality of days of interest and to a portion of said days of interest;

means for processing a retrieved plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods, each performance parameter in the group corresponding to a performance category within the summary period;

means for presenting and displaying each of said performance parameter groups in association with the corresponding summary period for the group;

means for processing the per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device;

means for presenting and displaying in a trend report said plurality of trend parameters for said reporting period; and

means for recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

In claim 2:

2. (Cancelled)

Replace Claims 3-8 with:

3. The system of claim 1, wherein at least one of said selected data parameters is a burst statistic.

4. The system of claim 3, further comprising a means for specifying a plurality of burst ranges.

5. The system of claim 3, further comprising a means for specifying a percentage range for each one of said burst ranges.

6. The system of claim 3, wherein said processing means for processing the per-summary-period performance parameter groups into a plurality of trend parameters further comprises a burst range trending means which predicts future performance of said communication device relative to each said burst range.

7. The system of claim 4, wherein at least one of said burst ranges is a total burst range corresponding to the total number of all bits transmitted during each one of said summary periods.

8. The system of claim 1, wherein said processing means for processing the per-summary-period performance parameter groups into a plurality of trend parameters determines said plurality of trend parameters using a statistical regression algorithm.

Replace Claim 10 with:

10. The system of claim 8, wherein said processing means for processing the per-summary-period performance parameter groups into a plurality of trend parameters further processes said plurality of trend parameters to predict the time at which capacity of said communication device becomes over utilized or under utilized and should be changed.

In claim 11:

11. (Cancelled)

Replace Claim 12 with:

12. A system for determining and predicting performance and recommending a configuration of a communication device, comprising:

- a data poller, wherein said data poller collects a plurality of data parameters from said communication device;
- a database which stores said data parameters;
- a user interface, wherein a user specifies a reporting period, said reporting period corresponding to a reporting period of interest, and said user specifies a plurality of summary

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periods, each said summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a plurality of days of interest and to a portion of said days of interest;

a processor, wherein said processor retrieves a plurality of selected data parameters from said database such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups which correspond to actual performance of said communication device during one of said summary periods, each performance parameter in the group corresponding to a performance category within the summary period;

a data presentation module, wherein said module presents each of said plurality of processed performance parameter groups in association with the corresponding summary period;

wherein the processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device, and

the data presentation module presents in a trend report said plurality of trend parameters associated with said reporting period;

wherein said processor recommends a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

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In claim 13:

13. (Cancelled)

Replace Claims 14-19 with:

14. The system of claim 12, wherein at least one of said selected data parameters is a burst statistic.

15. The system of claim 14, wherein a user specifies via said user interface a plurality of burst ranges.

16. The system of claim 14, wherein a user specifies via said user interface a percentage range for each one of said burst ranges.

17. The system of claim 14, wherein said processor further trends each said burst range to predict future performance of said communication device relative to each said burst range.

18. The system of claim 15, wherein at least one of said burst ranges is a total burst range corresponding to the total number of all bits transmitted during each one of said summary periods.

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19. The system of claim 12, wherein said processor generates said plurality of trend parameters using a statistical regression algorithm.

Replace Claim 21 with:

21. The system of claim 19, wherein said plurality of trend parameters predict the time at which capacity of said communication device becomes over utilized or under utilized and should be changed.

In claim 22:

22. (Cancelled)

Replace Claim 23 with:

23. A method for determining and predicting performance and recommending a configuration of a communication device, the method comprising the steps of:

- collecting a plurality of data parameters from said communication device;
- specifying a reporting period, said reporting period corresponding to a reporting period of interest;
- specifying a plurality of summary periods, each said summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a plurality of days of interest and to a portion of said days of interest;
- processing a plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said

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communication device during one of said summary periods, each performance parameter in the group corresponding to a performance category within the summary period;

presenting each of said plurality of performance parameters in association with the corresponding summary period;

processing said per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device;

presenting in a trend report said plurality of trend parameters associated with said reporting period; and

recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

In claim 24:

24. (Cancelled)

Replace Claim 25 with:

25. The method of claim 23, wherein at least one of said selected data parameters is a burst statistic.

Insert claim 26:

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26. The method of claim 25, further comprising a step of specifying a plurality of burst ranges.

Replace Claims 27-30 with:

27. The method of claim 25, further comprising a step of specifying a percentage range for each one of said burst ranges.

28. The method of claim 27, wherein said processing said per-summary-period performance parameter groups into a plurality of trend parameters step further comprises a burst range trending step which predicts future performance of said communication device relative to each one of said burst ranges.

29. The method of claim 26, wherein at least one of said burst ranges is a total burst range corresponding to the total number of all bits transmitted during each one of said summary periods.

30. The method of claim 23, wherein said processing said per-summary-period performance parameter groups into a plurality of trend parameters step determines said plurality of trend parameters using a statistical regression algorithm.

Replace Claim 32 with:

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32. The method of claim 30, wherein said processing said per-summary-period performance parameter groups into a plurality of trend parameters step further includes the step of predicting the time at which capacity of said communication device should be changed.

In claim 33:

33. (Cancelled)

Replace Claim 34 with:

34. A computer readable medium having a program for determining and predicting performance and recommending a configuration of a communication device, the program comprising logic configured to perform the steps of:

receiving a specification of a reporting period from a user, said reporting period corresponding to a reporting period of interest;

receiving a specification for a plurality of summary periods, each said summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to at least one day of interest and to at least a portion of said day of interest;

retrieving a plurality of selected data parameters, said plurality of selected data parameters corresponding to said plurality of summary periods;

processing said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods each

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performance parameter in the group corresponding to a performance category within the summary period;

presenting each of said plurality of performance parameters in association with the corresponding summary period;

trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device;

presenting in a trend report said plurality of trend parameters associated with said reporting period; and

recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

In claim 35:

35. (Cancelled)

Replace Claim 36 with:

36. A method for determining and predicting performance and recommending a configuration of a communication device, the method comprising the steps of:

retrieving a plurality of selected data parameters from a communication device, such that said plurality of selected data parameters corresponds to a plurality of summary periods, each said summary period defining a different portion of a reporting period, and wherein each said

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summary period corresponds to at least one day of interest and to at least a portion of said day of interest;

processing said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods;

trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device; and

recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

Replace Claim 37 with:

37. A system for determining and predicting performance and recommending a configuration of a communication device, comprising:

a user interface, wherein a user specifies a reporting period, said reporting period defining a reporting period of interest, and said user specifies a plurality of summary periods, each said summary period corresponding to a different portion of said reporting period, and wherein each said summary period corresponds to a at least one day of interest and to at least a portion of said day of interest; and

a processor, wherein said processor detects a plurality of selected data parameters from said communications device such that said plurality of selected data parameters corresponds to

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said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods, and wherein said processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device, and wherein said processor recommends a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port.

Replace Claim 38 with:

38. A system for determining and predicting performance and recommending a configuration of a communication device, comprising:

- means for collecting a plurality of data parameters from said communication device;
- means for storing said data parameters;
- means for specifying a reporting period, said reporting period corresponding to a reporting period of interest;
- means for specifying a plurality of summary periods, each said summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a at least one day of interest and to at least a portion of said day of interest;

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means for retrieving a plurality of selected data parameters from said storing means, said plurality of selected data parameters corresponding to said plurality of summary periods;

means for processing said plurality of selected data parameters into a per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods;

means for trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device;

means for recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port; and

means for presenting said plurality of processed performance parameters and said plurality of trend parameters in a trend report.

Replace Claim 39 with:

39. A method for determining and predicting performance and recommending a configuration of a communication device, the method comprising the steps of:

collecting a plurality of data parameters from said communication device;

storing said data parameters;

specifying a reporting period, said reporting period corresponding to a reporting period of interest;

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specifying a plurality of summary periods, each summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a at least one day of interest and to at least a portion of said day of interest;

retrieving a plurality of selected data parameters from storage, said plurality of selected data parameters corresponding to said plurality of summary periods;

processing said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during each of said summary periods;

trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device;

recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port;

presenting said plurality of processed performance parameter groups and said plurality of trend parameters in a trend report; and

displaying said trend report.

Replace Claim 40 with:

40. A transmitter having a built-in capability for determining and predicting performance and recommending a configuration, comprising:

a user interface, wherein a user specifies a reporting period, said reporting period corresponding to a reporting period of interest, and said user specifies a plurality of summary periods, each summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a at least one day of interest and to at least a portion of said day of interest;

a processor, wherein said processor retrieves a plurality of selected data parameters such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups each group corresponding to actual performance of said transmitter during one of said summary periods, and wherein said processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said transmitter, and wherein the processor recommends a performance rating in terms of capacity or size for said transmitter based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said transmitter, wherein said port speed corresponds to the rate at which data is transmitted through said port; and

a data presentation module, wherein said module presents said plurality of processed performance parameters and said plurality of trend parameters in a trend report.

Replace Claim 41 with:

41. A receiver having a built-in capability for determining and predicting performance and recommending a configuration, comprising:

a user interface, wherein a user specifies a reporting period, said reporting period corresponding to a reporting period of interest, and said user specifies a plurality of summary periods, each summary period defining a different portion of said reporting period, and wherein each said summary period corresponds to a at least one day of interest and to at least a portion of said day of interest;

a processor, wherein said processor retrieves a plurality of selected data parameters such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said receiver during each of said summary periods, and wherein said processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said receiver, and wherein said processor recommends a performance rating in terms of capacity or size for said receiver based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said receiver, wherein said port speed corresponds to the rate at which data is received through said port;

a data presentation module, wherein said module presents said plurality of processed performance parameter groups and said plurality of trend parameters.

In claim 42:

42. (Cancelled)

In claim 43:

43. (Cancelled)

In claim 44:

44. (Cancelled)

In claim 45:

45. (Cancelled)

A clean copy of the allowed claims is attached.

Reasons for Allowance

4. Claims 1, 3-8, 10, 12, 14-19, 21, 23, 25-30, 32, 34 and 36-41 of the application are allowed over prior art of record.

5. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

The closest prior art of record shows:

(1) a method of displaying information relating to performance and utilization of a computer resource over a preselected period of time, wherein the computer resource is connected

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to a communication network; the method includes periodically sampling data relating to the performance of the resource so as to generate stored values of a preselected performance variable for that variable; the periodic sampling takes place over a preselected period of time; collecting the stored values for a baseline period of time; the preselected performance variable takes on values over a specified range of possible values; dividing the specified range of possible values for the selected performance variable into a plurality of subranges; for each subrange, counting the number of times that a stored value falls into the subrange and determining for what portion of the preselected period, the values of the preselected performance variable fall within that subrange; for each subrange, displaying in graphical form the proportion of the preselected period of time that the values of the preselected performance variable fell within that subrange; setting a threshold value for the preselected performance variable; analyzing the stored values representing the baseline period to predict a time-to-threshold number, where this number is the expected time to elapse from the present time to a later time at which the predicted value of the performance variable will reach the threshold value; generating a report that presents the time-to-threshold number for the preselected performance variable; the selected performance variable is the percentage of the day for which the individual network segments were operating at various levels of utilization (**Engel et al.**, U.S. Patent 6,320,585);

(2) a test instrument for measuring the rate and size of bursts of cells received at a given node of an ATM network; depending on the expected traffic load, the ATM users agree with a service provider to a traffic contract involving pre-agreed limitations on peak cell rate anticipated that is an upper bound on the maximum frequency at which the user expects to transmit cells, the amount of cell delay variation that can be tolerated, the sustained cell rate anticipated and the

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maximum burst size; where the user anticipates transmission of bursty data traffic, a variable bit rate service is required; the service provider implements a traffic policing circuit which enforces limits on the frequency and burst size of user cell transmission; the burst rate and burst size measurements are useful in assuring that a service user has not oversubscribed or undersubscribed his virtual connection (**VanDervort**, U.S. Patent 5,699,346); and

(3) a system and method for characterizing burst traffic data in a communication network that detects occurrence of burst information and characterizes the burst information into at least one category based on either bits or frames; burstiness is caused by traffic occurring at frequent but irregular time intervals; each occurrence of the burst information in each category is counted with the counter being incremented for each category of detected burst data; the burst categorization logic allows the capture and analysis of multiple burst categories in a single interval over a long period of time; information on the size and extent of the traffic bursts is useful to determine how often a user exceeds the committed information rate (CIR) (**Hassell et al.**, U.S. Patent Application 2002/0018473).

None of these references taken either alone or in combination with the prior art of record discloses a system for determining and predicting performance and recommending a configuration of a communication device, specifically including:

“means for processing a retrieved plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods, each

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performance parameter in the group corresponding to a performance category within the summary period;

means for processing the per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device; and

means for recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port”, as described in Specification page 7, L26 through Page 9, L21; Figs. 2-5; and Specification Page 11, Line 9 through Page 23, Line 11.

None of these references taken either alone or in combination with the prior art of record discloses a system for determining and predicting performance and recommending a configuration of a communication device, specifically including:

“a processor, wherein said processor retrieves a plurality of selected data parameters from said database such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups which correspond to actual performance of said communication device during one of said summary periods, each performance parameter in the group corresponding to a performance category within the summary period;

wherein the processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device; and

wherein said processor recommends a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port”.

None of these references taken either alone or in combination with the prior art of record discloses a method for determining and predicting performance and recommending a configuration of a communication device, specifically including:

“processing a plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods, each performance parameter in the group corresponding to a performance category within the summary period;

processing said per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device; and

recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port”.

None of these references taken either alone or in combination with the prior art of record discloses a computer readable medium having a program for determining and predicting performance and recommending a configuration of a communication device, specifically including:

“processing said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods each performance parameter in the group corresponding to a performance category within the summary period;

trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device; and

recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port”.

None of these references taken either alone or in combination with the prior art of record discloses a method for determining and predicting performance and recommending a configuration of a communication device, specifically including:

“trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device; and

recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port”.

None of these references taken either alone or in combination with the prior art of record discloses a system for determining and predicting performance and recommending a configuration of a communication device, specifically including:

“a processor, wherein said processor detects a plurality of selected data parameters from said communications device such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said communication device during one of said summary periods, and wherein said processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device, and wherein said processor recommends a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port”.

None of these references taken either alone or in combination with the prior art of record discloses a system for determining and predicting performance and recommending a configuration of a communication device, specifically including:

“means for trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device; and

means for recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port”, as described in Specification page 7, L26 through Page 9, L21; Figs. 2-5; and Specification Page 11, Line 9 through Page 23, Line 11.

None of these references taken either alone or in combination with the prior art of record discloses a method for determining and predicting performance and recommending a configuration of a communication device, specifically including:

“trending said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said communication device; and

recommending a performance rating in terms of capacity or size for said communication device based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said communications device, wherein said port speed corresponds to the rate at which data is transmitted through said port”.

None of these references taken either alone or in combination with the prior art of record discloses a transmitter having a built-in capability for determining and predicting performance and recommending a configuration, specifically including:

“a processor, wherein said processor retrieves a plurality of selected data parameters such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a plurality of per-summary-period performance parameter groups each group corresponding to actual performance of said transmitter during one of said summary periods, and wherein said processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said transmitter, and wherein the processor recommends a performance rating in terms of capacity or size for said transmitter based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said transmitter, wherein said port speed corresponds to the rate at which data is transmitted through said port”.

None of these references taken either alone or in combination with the prior art of record discloses a receiver having a built-in capability for determining and predicting performance and recommending a configuration, specifically including:

“a processor, wherein said processor retrieves a plurality of selected data parameters such that said plurality of selected data parameters corresponds to said plurality of summary periods, and wherein said processor processes said plurality of selected data parameters into a

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plurality of per-summary-period performance parameter groups, each group corresponding to actual performance of said receiver during each of said summary periods, and wherein said processor trends said plurality of per-summary-period performance parameter groups into a plurality of trend parameters to predict future performance of said receiver, and wherein said processor recommends a performance rating in terms of capacity or size for said receiver based upon said plurality of trend parameters, wherein said performance rating corresponds to a port speed of a port residing in said receiver, wherein said port speed corresponds to the rate at which data is received through said port”.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance.”


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

K. Thangavelu
Art Unit 2123
December 6, 2005


Paul L. Rodriguez 12/9/05
Primary Examiner
Art Unit 2125